IN THE CLAIMS

--1 - 61. (Cancelled)

62. (New) A device for multiplexing samples from a plurality of ion sources, said device comprising:

a first capillary section having a first channel therethrough, said first section having entrance and exit ends, said entrance end of said first section including an orifice for receiving ions from at least one of a plurality of ion sources; and

a second capillary section having a second channel therethrough, said second section having entrance and exit ends;

wherein said first section is removably connected to said second section such that said exit end of said first section is coaxially aligned with said entrance end of said second section, and wherein said entrance end of said first section is movable between each of said ion sources.

63. (New) A device according to claim 62, wherein at least one of said ion sources is selected from the group consisting of electrosprayers, nanosprayers, microsprayers and pneumatic sprayers.

64. (New) A device according to claim 63, wherein said ion sources are arranged in an array.

65. (New) A device according to claim 64, wherein said array is planar.

66. (New) A device according to claim 64, wherein said array is cylindrical.

67. (New) A device according to claim 62, wherein said entrance end of said first section is movable in a planar direction.

68. (New) A device according to claim 62, wherein said entrance end of said first section is movable in a cylindrical direction.

69. (New) A device according to claim 62, wherein said first section is connected to said second section via a substantially airtight union.

70. (New) A device according to claim 62, wherein said first section is positioned to transport said received ions into a first vacuum region of a mass analyzer.

71. (New) A device according to claim 70, wherein said exit end of said second section is positioned in said first vacuum region.

72. (New) A device according to claim 75, wherein said exit end of said second section is positioned in a second vacuum region maintained at a lower pressure than said first vacuum region.

73. (New) A device according to claim 62, further comprising a sampling device aligned with said ion source, wherein said sampling device has at least one aperture.

74. (New) A device according to claim 73, wherein said sampling device includes at least one aperture for accepting said entrance end of said first section.

75. (New) A device according to claim 73, wherein said first section is moveable with said sampling device.

76. (New) A device according to claim 73, wherein said device further comprises a motor for controlling movement of said sampling device, and wherein said device further comprises a connecting rod for connecting said motor to said sampling device.

77. (New) A device according to claim 73, wherein said sampling device is moveable such that ions from each of said ion sources may be introduced into said entrance end of said first section.

78. (New) A device according to claim 62, wherein said first section is composed of a rigid material.

79. (New) A device according to claim 62, wherein said first section is composed of a flexible material.

80. (New) A device according to claim 62, wherein said device sequentially accepts said ions from said plurality of ion production devices.

81. (New) A device according to claim 62, wherein an electric potential is established between said first section and at least one of said ion sources to facilitate transportation of ions from said ion source through said aperture into said first section.

82. (New) A device according to claim 62, wherein said entrance end of said first section is movably mounted within an aperture in a sampling device.

83. (New) A device according to claim 82, further comprising a means for detecting alignment of said aperture and at least one of said ion sources.

84. (New) A device according to claim 83, wherein said means for detecting comprises a light emitting diode (LED) and a photodiode.

85. (New) A device according to claim 62, wherein said first section is composed of a flexible material.

86. (New) A method for multiplexing samples from a plurality of ion sources for subsequent mass analysis, said method comprising the steps of:

forming sample spray droplets from at least one of a plurality of ion sources;

desolvating said droplets to form sample ions;

positioning a sampling orifice in alignment with a first of said ion sources to receive said sample ions; and

introducing said sample ions into said mass analyzer from said sampling orifice through a capillary device.

87. (New) A method according to claim 86, wherein said plurality of ion sources include electrospray ionization (ESI) sprayers.

88. (New) A method according to claim 86, wherein said plurality of ion sources include ESI and pneumatic sprayers.

89. (New) A method according to claim 86, said method further comprising the step of:

directing heated drying gas onto said droplets during said desolvating.

90. (New) A method according to claim 86, said method further comprising the steps of

forming a sample spray of second droplets from a second one of said plurality of ion sources; and

desolvating said second droplets to form secondary sample ions.

91. (New) A method according to claim 90, said method further comprising the step of:

repositioning said sampling orifice in alignment with said second one of said ion source to receive said secondary sample ions.

92. (New) A method according to claim 86, wherein said capillary device is a flexible capillary.

93. (New) A method according to claim 86, wherein said sampling orifice is movable in a planar direction during said positioning.--